Starcraft II and Chinese Scroll Painting: Narrative Ideas for RTS Computer Games

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Abstract

Real Time Strategy (RTS) computer games have established themselves as highly successful Esports, however their capacity for single-player storytelling remains underdeveloped. In the case of Blizzard Entertainment's *Starcraft II: Wings of Liberty* (2010), the storytelling of the game was widely criticized for an over-reliance on filmic animated sequences that were structurally disconnected from the actual gameplay. We describe *Starcraft II* in relation to the RTS game genre and present its structural similarities to Chinese scroll painting. We present a selection of narrative strategies from within the Chinese landscape scroll, including cartographic narratives of the journey, poetic metaphors in transmedial landscapes and landscapes of geopolitical conquest. By analysing RTS games in terms of scroll painting, we seek to provide designers of RTS games with a set of narrative strategies that are more structurally congruent than the filmic animated sequences, and therefore encourage the creation of more innovate and coherent narrative structures for single-player RTS games. Our paper concludes with a thought experiment for how the game map of *Starcraft II* might be redesigned by incorporating narrative structures from Chinese scroll painting.

Introduction

This paper describes Real Time Strategy (RTS) games as having more in common with scroll paintings than they do with films in order to offer a new range of storytelling techniques for this popular game genre. Narrative storytelling in RTS games has been a frequent object of criticism. These criticisms commonly cite a conflict between filmic narrative techniques and isometric gameplay. Previous studies have established structural connections between RTS and Chinese scroll paintings. This paper examines Chinese scroll paintings to ask how their narrative structures might replace the use of film-based storytelling techniques in RTS games. The commercial success of Blizzard Entertainment's *Starcraft* franchise is largely due to the popularity of the game as a multiplayer competition and an Esport. The 2010 release of *Starcraft II: Wings of Liberty* was praised for its enhancements in gameplay, but criticized broadly for the execution of its single player narrative. Throughout the history of RTS games, filmic 'cut-scenes' provided a standard technique for driving plot developments. Our paper has selected a number of criticisms of *Starcraft II* as illustrations of the structural mismatch between isometric RTS gameplay and first-person perspective character-based narratives. By taking advantage of the connections between isometric RTS

games and Chinese landscape scrolls, we propose that Chinese scrolls could provide a series of innovative and structurally congruent storytelling techniques that could be abstracted and applied within RTS games. We provide a brief typology of the Chinese landscape scroll, considering cartographic landscapes, the transmedial poetic landscape, structured architectural scrolls and the geopolitical scrolls that depict the journeys of the Kangxi Emperor. By situating these narrative techniques within the language of game studies, we conclude this paper with a thought experiment for how scroll-inspired strategies might be used as a basis to redesign the narrative experience of *Starcraft II*.

Real Time Strategy Games (RTS)

In this section, we define the game genre of isometric Real Time Strategy in reference to its spatial configuration and mode of interaction. We argue that its structure is inherently incompatible with a character-driven, filmic story, and requires the development of an independent theory of visuality. We use this incompatibility to introduce and contextualise the criticism that was levelled at the narrative execution of *Starcraft II*. [1]

The game genre of RTS emerged in the late 1980s, and is now typified by titles such as *Warcraft* (Blizzard Entertainment, 1994 - present)*, Command & Conquer* (EA, 1995 - present) and *Starcraft* (Blizzard Entertainment, 1998 - present). [2] The genre focuses on large-scale battles between opposing players, where large numbers of units are directed across a map from an isometric, zoomed-out camera. The RTS game genre utilises a free-roaming camera system, where the player can manually navigate to any part of the map, independent of their avatars. Their ability to survey the exact content of the landscape, however, depends on the presence of friendly allied units to reveal terrain otherwise masked by the 'fog of war'. The decoupling of camera and avatar is a key difference between RTS and other games that use a similar camera viewpoint, where the camera is tied directly to the movement of the avatar, which the player controls. For example, in the isometric structure of the *Diablo* series (Blizzard, 1996 - present), the camera is tied to the avatar, and can be considered as an extension of the avatar, whereas in RTS and other

strategy simulations such as *Sim City* (EA, 1989 - present), the decoupled camera allows the player the omniscience required to plan and command. Both RTS games and city-building games place strong emphasis on construction and supply systems played out in a real-time environment, the focus on warfare distinguishes the RTS genre.

Our paper presents the RTS game *Starcraft II: Wings of Liberty* as a case study for our argument concerning structure and narrative between RTS and scroll painting. The game is a sequel released within Blizzard Entertainment's broader *Starcraft* franchise, and is popular both as a competitive Esport as well as a single-player narrative work. The first game in the series was released to critical acclaim in 1998, and the sequel was released in 2010. [3] Despite being well received as a graphical and mechanical improvement on the 1998 original, *Starcraft II* was widely criticised for weaving a narrative of cliché and generic character tropes. [4] Rather than focusing on *what* the narrative presented, our paper will concentrate on the criticisms of *how* the narrative was told. We will illustrate why the execution and method of delivery for this narrative was structurally incompatible with RTS gameplay to add value to our suggestion that innovative storytelling techniques can be developed within the existing structure of RTS maps. It is important to note that these strategies are not intended to be applied to the multiplayer or Esports function of *Starcraft* or RTS. In this paper we are looking specifically at the link between isometric RTS and structurally analogous modes of storytelling.

Fig 1. *Starcraft II: Wings of Liberty,* 2010, Blizzard Entertainment.

The existing narrative of *Starcraft II: Wings of Liberty* is told using a combination of radio-style inserted dialogue, in-game animations (visually similar to the isometric gameplay), and cinematic cut-scenes that imitate film in their perspective and visual composition. The use of cinematic animations reflects the uneasy relationship between computer games and film when it comes to storytelling, which is especially evident in ludology/narratology discourse. [5] Using Günzel's

conception of the 'image-space' and the 'space-image' for conventional images in media and video games (or other works that allow the user to manipulate the camera), the conflict between the cut-scenes and gameplay of *Starcraft* can be described as arising from an attempt to use images presented in 'image-space' within a context that requires the 'space-image'. [6] Using to Günzel's definition, a conflict is created in *Starcraft II* by removing the control of the camera from the player and implementing an entirely different visual language. In this light, the contrast in *Starcraft II* between the personal, cinematic sequences during cut-scenes, and the omniscient isometric detachment during gameplay is unmistakable. The contrast means that the player is constantly reminded of the real world. This interrupts the game and allows for self-reflection, which is something that Whitson et. al also advise against when seeking to create an immersive game experience. [7] Furthermore, the player's ability to survey the game map, independently from their avatars creates a detachment, where any single unit is generally one of many, which further undermines any sense of attachment or empathy the player should feel for an individual unit. [8] In RTS games, units are mass produced and expendable, so long as the player can still progress towards overall victory. This function does not encourage the player to form emotional attachments to individual units. This detachment typifies the criticism of *Starcraft II: Wings of Liberty* and that of the RTS storytelling in general, where the impersonal nature of gameplay is routinely, and inappropriately, coupled to a narrative that depends on a small cast of individual characters – the exact opposite of the anonymous characters that exist within the gameplay. [9] Players of *Starcraft II: Wings of Liberty* criticised the emotional connection they were expected to have to individual game characters, and complained that this undermined their narrative experience within the game. [10] We argue that this problem is caused by the custom within RTS games for creating personal stories around individual characters that rely on filmic methods of presentation. Our analysis of the structural history of isometric gameplay and its ancestral connections to Chinese scroll painting will open up a wide set of narrative strategies which could be exploited by the RTS genre to replace the disjunctive use of filmic storytelling in isometric games.

Isometric and Oblique Projection

To form an initial bridge between isometric RTS games and Chinese scroll painting, we will outline the technical distinctions and historical connections between isometric projection (commonly found in RTS games) and oblique projection (commonly found in Chinese scroll painting). These commonalities will form the starting point for our thought experiment to redesign *Starcraft II* game maps based on ideas from Chinese scroll painting.

Jan Krikke presents isometric and oblique drawing as forms of 'parallel projection'. They do not include a vanishing point, and parallel lines on physical objects remain parallel in their graphic representation (see Figure 2). [11] The Chinese scroll was intended to be unrolled from right to left, viewing approximately one metre at a time, so that the viewer could experience a seamless transition of scenes and images. Krikke describes this as "a kinetic medium, based on the synthesis of space and time" that stands in contrast to the European optical perspective, which "depicted a frozen moment in time." Krikke identifies oblique projection as a temporal space, and describes it as a non-hierarchical space due to its lack of scaling between near and distant objects. [12] In other words, human figures in the foreground and background, or at any point along the scroll remain essentially the same size, and therefore there is less hierarchy of importance between individuals, as compared to a perspectival image where figures in the background are of both diminished scale, and diminished narrative importance within the image.

Fig 2. *Spring Morning in the Han Palace*, Ming Dynasty, Qiu Ying, section of a hand scroll, ink and colours on silk, National Palace Museum, Taipei.

Isometric projection was invented as a graphic technique in England by William Farish in 1822. It uses a similar projection of parallel lines to that used in oblique projection, and has the similar result - figures remain a constant size, and the space is endlessly extendable along any axis of the image, without any warping or need to return to a common vanishing point. Krikke speculated that the invention of isometrics in England could have been influenced by the importation of oblique projection to Europe by Jesuit monks in the 17th century. [13] Due to the lack of perspectival diminution of scale tied to spatial recession, isometrics allowed mechanical drawings to communicate 3D form as well as to display accurate measurements, and the historical use of isometrics expanded in the West from industrial design, into architecture, and other aspects of visual culture. Krikke points out that the eventual use of isometrics in early computer graphics was a pragmatic solution to representing three dimensional space, because the lack of scaling kept processing requirements to a minimum, and

interactive spaces could be created using sprites that did not require complex changes in scale to facilitate a coherent depiction of movement. [14]
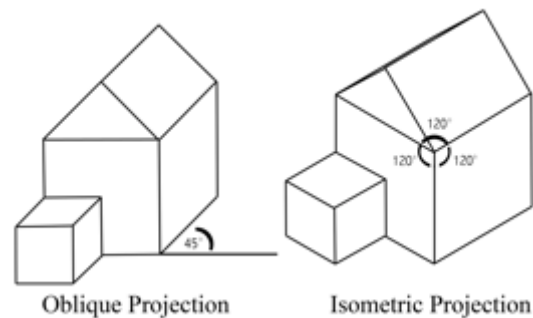

Fig 3. *Oblique and isometric projection*, 2015, illustration by the authors.

Bernadette Flynn identifies the importance of scroll painting for discussing the interactive function of scrolling and isometrics in computer games, and proposed that these spatial devices, ancestral to certain computer games, could be used to locate the cultural significance of particular modes of spatial interaction in games. [15] Our paper would like to take this parallel one step further. By using Krikke and Flynn's analyses to connect isometric RTS with Chinese scroll painting, we wish to explore what narrative structures exist within Chinese scroll paintings, and how they might be implemented in the redesigning of the single player RTS experience.

Chinese Hand scrolls

To expand the connection between the Chinese scroll and isometric RTS games, we present a brief typology of the scroll to demonstrate the wealth of cultural and narrative devices potentially available to RTS game design. We have focused specifically on the hand scroll landscape (that which unrolls along the x axis) because this presents the closest structural analogue to RTS as identified by Krikke and Flynn. We have therefore excluded the album leaf and the hanging scroll formats. The hand scroll appears across a number of genres in Chinese painting. In this section we isolate four narrative functions within Chinese scroll painting: the landscape as a cartographic description of traversable geography, a calligraphic representation of metaphoric landscapes imagined in poetry, a structured architectural representation of Chinese Imperial society, and a landscape of journey and geopolitics.

Hu Bangbo describes a Song dynasty hand scroll that displays qualities of both a landscape painting and a cartographic map. *Ten Thousand Li Along the Yangzi River* (artist unknown) was historically classified as an artwork within the Qing dynasty imperial

collection, however its cartographic accuracy in representing and naming the specific landforms and their traversable pathways in Sichuan was a highly uncharacteristic feature for a landscape painting. Hu Bangbo therefore situates it as a hybrid landscape, or "art as map". [16] This designation is useful for two reasons. First, it reveals how cartographic landscapes in Chinese painting can communicate highly specific information relative distances between sites and how to find the way from A to B. Second, this borderline art/map scroll connects us to the fact that non-cartographic landscapes in Chinese painting usually had little or no relationship to actual places at all, and were to be read as metaphoric landscapes.

Fig 4. *Imitating Zhao Bosu's Illustration of the Latter Red Cliff,* Ming Dynasty, Wen Zhengming, section of a hand scroll, ink and colours on silk, National Palace Museum.

A more conventional artistic use of the hand scroll landscape is Wen Zhenming's *Imitating Zhao Bosu's Latter Ode on Red Cliff* (Ming dynasty) (Figure 4). This painting depicts a landscape based on a Song dynasty poem written by Zhao Bosu. [17] The poem recounts a melancholic night on the Yangtze River, where the drunken poet exclaims his existential struggle on a cliff's edge, and finds solace through his hallucinations of the Taoist sages. Like the poem, Wen Zhengming's landscape refers to, but does not specifically depict the Yangtze River. The artist represented the rocks and mountains using the blue and green style of the Tang dynasty, thereby weaving an additional layer of cultural lineage into the landscape scroll. [18] In this case, we have a landscape scroll, based on a poem, with a suggested connection to an actual place, and a heavy reliance on previous iconographic traditions to create layers of meaning.

Qiu Ying's *Spring Morning in the Han Palace* (Ming dynasty) (Figure 2) uses strict ruled line oblique projection to create an architectural environment that represents the Han Imperial court. Within the geometry of this architectural scroll, Gloria Eslinger and Maura Zephier identify numerous representations of gender politics in the Ming dynasty. The concubines, courtesans and eunuchs that comprised Imperial court life generate a tension that is regulated by the highly structured and repetitive oblique architectural environment of this hand scroll. [19]

The series of hand scrolls, collectively referred to as *The Southern Tour of the Kangxi Emperor* (Figure 5) was painted by a team of artists headed by Wang Hui (1632 - 1717). Commissioned to document the Kangxi Emperor's Southern Inspection tour, they depict the imperial journey through Southern China, the civic life of the cities, as well as the Emperor's observation of Confucian rites (an important symbol to the literati of Southern China). [20] James Elkins describes Qing dynasty painting as presenting a complex amalgam of historical styles. [21] This work has an overt cartographic structure that depicts the specific landmarks of the Kangxi Southern Inspection Tour. The stylistic depiction of trees and mountains draws heavily on what Lothar Ledderose described as the repetitive modular lexicon Chinese landscape painting (including the same blue and green mountains as used by Wen Zhengming). [22] This scroll can also be read as a geopolitical historical document. [23] The management of the waterways of Southern China was vital to maintaining Imperial authority over Southern China, due to their importance as a trade routes and their vulnerability to flooding. After the overthrow of the Ming dynasty by the Manchus, supervision of the canals and levee systems in the South was of vital importance. [24] The Kangxi Emperor undertook six southern inspections, and it is argued that the symbolic importance of such tours resonates to the modern day, with Deng Xiaoping's 1992 'tour inspection of the south (nanxun)'. [25]

Fig 5. *The 'Southern Tour' of the Kangxi Emperor,* Ming Dynasty, Wang Hui, Detail of hand scroll on silk, Palace Museum, Beijing

From this very brief typology of the narrative structures available within Chinese scroll painting, we have summarised four examples: the landscape as a traversable map, the landscape as a metaphorical poetic space, an architectural space for containing social relations, and the landscape as a geopolitical journey. Krikke and Flynn have provided a structural entry point for comparing scroll painting and RTS games. We will now expand on this connection to discuss how some of these narrative ideas from scroll painting might be applied to the design of *Starcraft II,* in order to replace the language of film, as more structurally compatible approaches for narrative development.

Discussion

Through the examples provided in this paper, we have created a functional context within which we can now exchange ideas between RTS games and Chinese scroll

painting. The inspiration for this exchange was the criticisms of narrative construction within *Starcraft II*, coupled with the links made by Flynn and Krikke to the rich narrative potential of Chinese scroll painting. We would like to conclude this paper by speculating upon how *Starcraft II* could innovate narrative strategies inspired by Chinese scroll painting. Before speculating on how scroll painting might be applied to the level design of *Starcraft II*, we will situate our thought experiment within a broader discussion more familiar to computer game studies.

Henry Jenkins introduces the term 'spatiality' to suggest how narrative might be approached in computer games. Jenkins argues that spatiality, rather than filmic storytelling, is a more suitable narrative approach for games, where exploration takes precedent over plot development. [26] He argues that whilst the future of games will have no single answer for narrative development, game designers and critics would be well served to consider a broader set of cultural reference points when speculating on what directions this future might take. Olli Leino points out that the problem with the term 'spatiality' is that in a computer game, topography breaks down into topology, and that the spatial environment of the computer game is entirely dependent on how certain features exist in a hierarchy of importance for the player. Leino suggests the term 'playable world' be used such that the topological hierarchy of the game environment is not lost in a discussion of what is simply 'spatial'. [27] Dovey and Kennedy elaborate on Jenkins' suggestion, and write that 'enacted' or 'embedded' narratives can be built on the players navigation through environments and obstacles, whose resistance to the player define the imperatives of the game, and that these obstacles can be the building blocks of narrative experience. [28] Therefore, to talk of spatiality as a narrative device within gaming requires the clarification that spatial exploration is only significant to the player if it is vital to the condition and imperatives of the game. Given this clarification, we feel it is appropriate to offer our paper as a response Jenkins' initial suggestion that we turn to other narrative media for critical inspiration.

As previously noted, the criticism of *Starcraft II* was its disjunctive use of first-person perspective cut-scenes interspersed between discrete game maps, to deliver plot developments. Our thought experiment for redesigning the single player experience of *Starcraft II* removes the cinematic cut-scenes that intersperse game levels, and places the entire single player campaign within one single landscape 'mega-map', within which the player is responsible for a travelling army. This addresses the criticism that the use of first-person cinematics as a narrative tool is disruptive and immersion-breaking, and allows us to open up the structure of the game to various embedded narrative approaches. Using Jenkin's terminology of micronarratives [29], battles with enemy armies would punctate the player's journey, challenge

the command of territory, and amalgamate to form major narrative moments. Extended bottlenecks, stretched supply lines and open plains vulnerable to attack would offer a rich variety of landscape tools for narrative construction. As resources depleted, the player would be forced to push deeper into the unexplored landscape. With the treacherous landscape and suitably strong enemy armies, the player would have to balance advance and retreat, the possible abandonment of forces and settlements, and the repeated need to rebuild new bases and raise new armies. A major implication of having an entire campaign take place in a single map is the issue of expendability. Presently in *Starcraft II* and other RTS games with a similar mission based structure, the sequential nature of missions allow for hero units or important story characters to be inconspicuously and non-diegetically resurrected between missions without breaking the player's suspension of disbelief. In our suggested model, this would have to change as the breaks between missions have been removed, pushing significant events, such as deaths, towards a higher level of permanency. This could provide a space for the organic development of the player's units as they acquire more kills over time, which in turn would allow stronger hero units to emerge through gameplay, rather than be arbitrarily assigned through their association with cut-scenes and predefined story. We speculate that players would place greater value on these evolved hero units simply from having spent more time and effort with them, which in turn might make the player more likely to form some kind of emotional connection. The 'mega-map' landscape would not have been possible in the early days of RTS games, however with contemporary processing power, such ideas can now be supported. For the remainder of this paper, we have generated three specific design suggestions within the framework of the 'mega-map', inspired by devices from scroll painting. Our thought experiment does not advocate for specific narrative arcs (this is the territory of *Starcraft* lore), instead we offer techniques and structures that could be implemented as embedded narrative devices within the playable world.

The Blue/Green Mountains of Wen Zhengming

Wen Zhengming's use of the archaic blue/green colouration in repainting the poetic journey of Su Dong Po implies a method whereby a landscape can be re-inscribed with cultural content over and over, and can be viewed as an accumulation of layered meanings and significance. We suggest the construction of a landscape map that must be traversed and backtracked over multiple times. Through the allocation of resources, the presence of hostile threats and the use of cartographical bottlenecks, the player can be forced to return to areas they have previously inhabited or areas that have seen previous conflict. Bases and structures, either abandoned or destroyed, can be returned to, and destroyed units will remain in the map. The player will be forced to re-engage continually with the landscape and re-inscribe its

significance, rather than simply conquer it and leave it behind. The blue/green mountains imply that the landscape is never new, instead it is layered with the inhabitation of the past. By making this part of the player experience, architectural ruins will not be inert scenic elements, but they will be remnants of their actual historical connection with the game map which, under our thought experiment, they must inhabit for the entire duration of the *Starcraft II* campaign.

The Imperial Court of Qiu Ying (The Architecture of Social Relations)

By creating sections of the game maps that are dominated by restricted architectural spaces, we can limit which units the player can use in a section of the game map (as exists in select *Starcraft II* maps at present). By effecting this transition from landscape environments to urban architectural spaces, we will force the player to reconsider the hierarchy and value assigned to their units. Inspired by the way in which Qui Ying uses the architectural scroll to articulate the gender tensions within the Imperial Court, we also suggest that the value hierarchy of *Starcraft II* units further exploit the assignation of gender within unit types. When the values of units are redefined by their ability to navigate different architectural environments, the specific units that the player must use within this restricted space can restructure the narrative character of their army.

The Southern Inspection Tour

In *Starcraft II* there exists the ability to use harvested resources to summon re-enforcements, currently referred to as 'mercenaries' within the narrative of the game. These units (such as the War Pigs or the Sons of Korhal) currently drop from the sky and assist the player. Inspired by the geopolitical qualities of the Southern Inspection Tour scroll, we suggest that the player can have the opportunity to politically woo potential allies within the game map. The player can prove their worth to potential NPC allies via their ability to construct buildings for them or to protect them from other hostile NPCs. The metaphor of controlling the flooding Yangtze as a demonstration of the right to rule could be implemented here, whereby the player enacts a means of hazard reduction against environmental or NPC threats, and in return, is granted control of a new allied army. Similarly, if their hazard reduction measures fail, the right to rule might be jeopardised, and the ally might rebel and either abandon the player, or become hostile. This embedded narrative would allow territory, resources, diplomacy and military power to form narrative arcs that could be designed into the game map.

McKenzie Wark argues that in *Civilisation III* (Firaxis Games, 2001), the storyline of the game is subsumed by the interaction between the allegory of the algorithm (the way that the gamespace must be played becomes the story). [30] Alexander Galloway refers to *Starcraft* as a game where the algorithmic differences between the different races (Terran, Zerg and Protoss) force the player to develop a new form of balance and flow. According to Galloway, *Starcraft* is defined by its different modes of being within the landscape, the most marked difference being that between the army and the swarm. [31] Our thought experiment seeks to allow the design of *Starcraft II* to better realise its mode of being, and its potential for providing a deep narrative experience for the single player. By looking back to scroll painting as a structural precedent for RTS gaming, we have sought to practically expand the narrative language of *Starcraft II* by enacting the insights of current computer game theory.

Conclusion

This paper was written in response to an enjoyment of the single player experience of *Starcraft II* and the criticisms from the player community regarding the disjunctive relationship between isometric gameplay and filmic animated sequences and cut-scenes. We took advantage of the existing relationship between RTS games and Chinese scroll painting outlined by Krikke and Flynn to investigate how narrative strategies within scroll painting might be incorporated into the redesign of the single player experience of *Starcraft II*. By removing the first-person animated sequences and situating the entire player campaign within a single 'mega-map' landscape, we opened up a situation where extended immersion and extended time spent with the same units can form the basis for narrative development. By isolating a small number of strategies – the re-inscribed landscape, the architecture of social relations and the geopolitical journey scroll, we connected these narrative approaches to an existing discussion within game studies. The application of these approaches within our thought experiment seeks to provide an alternative language to film, which might allow for a more successful narrative experience to be created within the format of single player RTS games, such as *Starcraft II*.

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